

June 18, 2020

OPP Docket, U.S. EPA Docket Center (EPA/DC), (28221T)  
1200 Pennsylvania Ave. NW  
Washington, DC 20460-0001

**RE: Comments on the Proposed Interim Registration Review Decisions for the Neonicotinoid Insecticide Class**

(Docket Numbers EPA-HQ-OPP-2008-0844; EPA-HQ-OPP-2011-0581; EPA-HQ-OPP-2011-0865; EPA-HQ-OPP-2012-0329; and EPA-HQ-OPP-2011-0920)

The Xerces Society for Invertebrate Conservation (Xerces) is submitting these additional comments to EPA in light of new information on treated seed disposal. These comments are in addition to our extensive comments dated May 4, 2020.

Xerces is an international nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat. Xerces has extensive knowledge of the impacts of neonicotinoids on pollinators and other invertebrate species based on our research and literature reviews. It is with this expertise that we offer comments.

*EPA does not adequately regulate disposal of treated seed*

Since EPA does not regulate pesticide-treated seed as a pesticide, there is very little information available about planting of treated seed, though what we do know suggests that treated seed is widely used and negatively impacts ecosystems (Douglas et al. 2020; Hitaj et al. 2020). There is even less information available about how excess treated seed is disposed, and what quantities are disposed rather than planted. Routes of treated seed disposal have not been adequately considered by EPA to ensure that ‘disposed’ treated seed is not contaminating the environment.

In EPA’s Proposed Interim Decisions, the agency discusses proper disposal of neonicotinoid-treated seed but does not consider harms that can occur from treated seed once it is ‘disposed’. EPA suggests methods for disposal including planting or burying excess treated seed away from waterways, but does not require specific disposal methods. The agency refers to best management practices from a trade group for disposal recommendations (ASTA 2020). These recommendations include disposal facilities like waste management facilities, power plants, cement kilns, ethanol plants, and municipal landfills. It states that these facilities will need to have an EPA permit to accept pesticide treated seed, but does not go into further detail about required permitting. EPA must consider the impacts of all treated seed disposal pathways.

*Ethanol facilities present concerning exposure routes*

Recent information that has come to our attention sheds light on particular concerns around using excess seed in ethanol production. Anecdotal evidence from Nebraska suggests that ethanol plants receiving treated seed for use in fermentation are contaminating nearby waterways and ecosystems. Holding ponds and by-products of ethanol production can contain extreme levels of neonicotinoids and other seed treatment products. Holding pond samples from one ethanol plant contained 44.7 to 58,400 ppb of clothianidin, 0 to 108 ppb of imidacloprid, and 26.0 to 35,400 ppb of thiamethoxam. Samples of the wet cake ethanol byproducts contained 112,000 ppb of clothianidin, 485 ppb of imidacloprid, and 30,500 ppb of thiamethoxam (see Appendix A). Wastewater from this facility is discharged into local waterways or applied to neighboring fields, and solids have been land-applied in the area. Reports of colored dust settling on nearby properties from the unloading and handling of treated seed suggests dust-off concerns similar to, and possibly more severe than, those from the planting of treated seed. There may also be occupational health concerns from handling treated seed in ethanol production facilities that have not been addressed by EPA. Runoff and discharge from storage ponds and application of contaminated ethanol byproducts (wet cakes, etc.) as a soil amendment appears to be leading to excessive levels of neonicotinoids in local waterways and bee kills.

Insecticide treated seed labels state that 'excess treated seed may be used for ethanol production only if (1) by-products are not used for livestock feed and (2) no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.' Despite this statement, it is not clear that there is robust tracking or enforcement of these restrictions for disposal of treated seed in ethanol plants.

Continuing to exempt neonicotinoid treated seed from pesticide regulation via the treated article provision is leading to unreasonable adverse effects on the environment through both the use and disposal of treated seed. EPA must consider the impacts of disposal of excess treated seed as the agency evaluates the environmental effects of neonicotinoid use. Thank you for considering these comments and for further investigating proper disposal of unplanted treated seed.

Sincerely,

Sarah Hoyle  
Pesticide Program Specialist

Aimee Code  
Pesticide Program Director

## References:

- American Seed Trade Association [ASTA]. The Guide to Seed Treatment Stewardship. Available at: <https://seed-treatment-guide.com/wp-content/uploads/2014/12/ASTA-Seed-Guide-Farmers.pdf>. Accessed June 16, 2020.
- Douglas, M., D. Sponsler, E. Lonsdorf, and C. Grozinger. 2020. County-level analysis reveals a rapidly shifting landscape of insecticide hazard to honey bees (*Apis mellifera*) on US farmland. *Scientific Reports* 10: 797.
- Hitaj, C., D. Smith, A. Code, S. Weschler, P. Esker, and M. Douglas. 2020. Sowing Uncertainty: What We Do and Don't Know about the Planting of Pesticide-Treated Seed. *Bioscience* 70(5): 390-403.

## Appendix A.

### AltEn Ethanol Plant Waste Lagoon and Wet Cake Byproduct Sampling Analysis

ALTEN

IIS: 84069

PCS: DE 0137634

10/8/2019  
mp**Sample Collection Field Sheet**  
US EPA Region 7  
Kansas City, KS

ASR Number: 8209 Sample Number: 4 QC Code: \_\_\_ Matrix: Solid Tag ID: 8209-4-\_\_\_

Project ID: TJAAEEP4S  
Project Desc: Alt-En Ethanol Plant - NDEQ ASR  
City: Mead  
Program: Water EnforcementProject Manager: Tabatha Adkins  
State: Nebraska

Location Desc: Seed corn sample

Storet ID: \_\_\_\_\_

External Sample Number: \_\_\_\_\_

Expected Conc: \_\_\_\_\_ (or Circle One: Low Medium High) Date \_\_\_\_\_ Time(24 hr) \_\_\_\_\_

Latitude: \_\_\_\_\_

Sample Collection: Start: 04/08/2019 13:30

Longitude: \_\_\_\_\_

End: \_\_\_/\_\_\_/\_\_\_ \_\_\_:\_\_\_

**Laboratory Analyses:**

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Soil
1 - 8 oz glass	None	28 Days	1 TCLP Mercury in Soil
0 -	4 Deg C	0 Days	1 Percent Solid

**Sample Comments:**

(N/A)

Sample Collected By: NDEQ



20190060094

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**Collected By:**

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**Report Date: 2019-04-25****Final Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20190415-002  
Lab Sample Id : 19PE001995  
Customer Sample Id : West Lagoon  
Sample Description : Liquid  
Date Collected : 2019-04-08  
Date Received : 2019-04-15

ANALYTE	RESULT
Acetamprid	ND ppb
Azoxystrobin	99.3 ppb
Bifenthrin	ND ppb
Brassinazole	ND ppb
Chlorpyrifos-ethyl	ND ppb
Chlorpyrifos-methyl	ND ppb
Clothianidin	58400 ppb
Cyfluthrin	ND ppb
Cypermethrin	ND ppb
Cyproconazole	ND ppb
Deltamethrin	<5 ppb
Dimoxystrobin	ND ppb
Epoxiconazole	ND ppb
Fluconazole	ND ppb
Glufosinate	ND ppb
Glyphosate	124 ppb
Imidacloprid	108 ppb
Isavuconazole	ND ppb
Lambda-cyhalothrin	ND ppb
Metconazole	ND ppb
Orysastrobin	ND ppb
Permethrin	ND ppb
Posaconazole	ND ppb
Propiconazole	ND ppb
Pyraclostrobin	ND ppb
Ravuconazole	ND ppb
Tebuconazole	213 ppb
Thiabendazole	8450 ppb
Thiacloprid	ND ppb
Thiamethoxam	35400 ppb

Trifloxystrobin  
Uniconazole  
Voriconazole

58.2 ppb  
ND ppb  
ND ppb

**Comments:**

ND: Not Detected

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**Report Date: 2019-04-29****Final Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20190415-002  
 Lab Sample Id : 19PE001996  
 Customer Sample Id : Overflow Lagoon  
 Sample Description : Liquid  
 Date Collected : 2019-04-08  
 Date Received : 2019-04-15

ANALYTE	RESULT
Acetamprid	ND ppb
Azoxystrobin	581 ppb
Bifenthrin	ND ppb
Brassinazole	ND ppb
Chlorpyrifos-ethyl	ND ppb
Chlorpyrifos-methyl	ND ppb
Clothianidin	44.7 ppb
Cyfluthrin	ND ppb
Cypermethrin	ND ppb
Cyproconazole	ND ppb
Deltamethrin	<5 ppb
Dimoxystrobin	ND ppb
Epoxiconazole	ND ppb
Fluconazole	ND ppb
Glufosinate	86.7 ppb
Glyphosate	3850 ppb
Imidacloprid	ND ppb
Isavuconazole	ND ppb
Lambda-cyhalothrin	<5 ppb
Metconazole	ND ppb
Orysastrobin	ND ppb
Permethrin	ND ppb
Posaconazole	ND ppb
Propiconazole	726 ppb
Pyraclostrobin	ND ppb
Ravuconazole	ND ppb
Tebuconazole	2330 ppb
Thiabendazole	39700 ppb
Thiacloprid	ND ppb
Thiamethoxam	26.0 ppb

Trifloxystrobin  
Uniconazole  
Voriconazole

737 ppb  
ND ppb  
ND ppb

**Comments:**

ND: Not Detected

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**Report Date: 2019-04-25****Final Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20190415-002  
 Lab Sample Id : 19PE001997  
 Customer Sample Id : Wet Cake  
 Sample Description : Cake  
 Date Collected : 2019-04-08  
 Date Received : 2019-04-15

ANALYTE	RESULT
Acetamprid	ND ppb
Azoxystrobin	1430 ppb
Bifenthrin	ND ppb
Brassinazole	ND ppb
Chlorpyrifos-ethyl	ND ppb
Chlorpyrifos-methyl	ND ppb
Clothianidin	112000 ppb
Cyfluthrin	ND ppb
Cypermethrin	ND ppb
Cyproconazole	ND ppb
Deltamethrin	ND ppb
Dimoxystrobin	ND ppb
Epoxiconazole	ND ppb
Fluconazole	ND ppb
Glufosinate	ND ppb
Glyphosate	ND ppb
Imidacloprid	485 ppb
Isavuconazole	ND ppb
Lambda-cyhalothrin	ND ppb
Metconazole	ND ppb
Orysastrobin	ND ppb
Permethrin	ND ppb
Posaconazole	ND ppb
Propiconazole	ND ppb
Pyraclostrobin	ND ppb
Ravuconazole	ND ppb
Tebuconazole	10400 ppb
Thiabendazole	55600 ppb
Thiacloprid	ND ppb
Thiamethoxam	30500 ppb

Trifloxystrobin  
Uniconazole  
Voriconazole

1750 ppb  
ND ppb  
ND ppb

**Comments:**

ND: Not Detected

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